



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-5914; Directorate Identifier 2014-SW-056-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters (formerly Eurocopter France)

Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Airbus Helicopters Model SA341G and SA342J helicopters. This proposed AD would require repetitive inspections of a certain part-numbered main rotor hub torsion bar (torsion bar). This proposed AD is prompted by several cases of corrosion in the metal strands of the torsion bar. The proposed actions are intended to detect corrosion and prevent failure of the torsion bar, loss of a main rotor blade, and subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- **Fax:** 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-5914; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt. For service information identified in this proposed AD, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

FOR FURTHER INFORMATION CONTACT: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 10101 Hillwood Pkwy, Fort Worth, Texas 76177; telephone (817) 222-5110; email robert.grant@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

EASA, which is the Technical Agent for the Member States of the European Union, issued EASA AD No. 2014-0216, dated September 24, 2014, to correct an unsafe condition for Airbus Helicopters Model SA341G and SA342J helicopters. EASA advises that several cases of cracks were found on the polyurethane (PU) coating of part-numbered 704A33633274 torsion bars installed on military Model SA341 helicopters. EASA states that these parts can also be installed on civilian Model SA341 and SA342

helicopters. According to EASA, analysis of the cracked torsion bars showed small areas of superficial corrosion on the strands inside the bars can also develop during the manufacturing process. EASA states that cracking of the PU coating near these areas and the associated penetration of water can lead to further and deeper development of the corrosion. EASA advises that this condition, if not detected and corrected, allows water to penetrate into the torsion bar causing corrosion and failure of the metal strands inside the bar. Failure of the metal strands could lead to torsion bar failure, resulting in an in-flight loss of a main rotor blade and consequent loss of control of the helicopter.

FAA's Determination

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR part 51

We reviewed Airbus Helicopters Gazelle work card 65.12.607, dated August 2008. This service information describes inspecting the torsion bars for a crack in the PU coating and for corrosion and thickness of the bushings.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

Other Related Service Information

Airbus Helicopters has issued Alert Service Bulletin No. SA341/SA342-05.40, Revision 0, dated April 28, 2014 (ASB), for Model SA341G and SA342J helicopters certificated by the FAA, and military Model SA341B, C, D, E, F, and H and SA342K, L, L1, M, M1, and Ma helicopters. The ASB specifies repetitively inspecting the torsion bars in accordance with certain work cards, including work card 65.12.07. These inspections are part of Airbus Helicopters' current maintenance program, and the ASB revises the compliance time interval for the inspections.

Proposed AD Requirements

This proposed AD would require removing and performing repetitive inspections of each torsion bar for a crack in the PU coating, the dimension of the angle between the bushings, corrosion on the inside diameter of each bushing, the thickness of each bushing, the size of the inside diameter of each bushing, and missing varnish on the two faces of each bushing. This proposed AD would require replacing the torsion bar before further flight if there is a crack in the PU coating of a torsion bar that matches or exceeds the damage criteria, if the angle of the torsion bar is 7 degrees or more, if any corrosion on a bushing cannot be removed by rubbing it with an abrasive pad, if the thickness of a bushing is less than 37.520 mm (1.477 in), or if the diameter of a bushing is larger than 21,040 mm (.828 in). If varnish is missing from more than 15 percent of the surface area from a face of a bushing, this proposed AD would require removing all varnish, finishing with an abrasive pad, and applying a coat of paint to the face of the bushing.

Differences between this Proposed AD and the EASA AD

This proposed AD would require you to replace a torsion bar instead of returning it to the manufacturer for examination.

Interim Action

We consider this proposed AD to be an interim action. If final action is later identified, we might consider further rulemaking.

Costs of Compliance

We estimate that this proposed AD would affect 33 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this AD. We estimate \$85 per work hour for labor. We estimate 8 work hours to inspect each helicopter at an estimated cost of \$680 per helicopter and \$22,440 for the fleet per inspection cycle. Replacing a torsion bar would cost \$7,020 for required parts; no additional labor would be necessary.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Airbus Helicopters (formerly Eurocopter France): Docket No. FAA-2015-5914;
Directorate Identifier 2014-SW-056-AD.

(a) Applicability

This AD applies to Model SA341G and SA342J helicopters with a main rotor head torsion bar (torsion bar) part number 704A33633274 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in the coating of the torsion bar resulting in corrosion. This condition could result in failure of a torsion bar, loss of a main rotor blade, and subsequent loss of control of the helicopter.

(c) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) For each torsion bar with less than 5 years since the first date of installation on any helicopter, within the compliance time shown in Table 1 to paragraph (e)(1) of this AD:

(i) Remove the torsion bar and, using a magnifying glass with a maximum magnification level of 10X, visually inspect for a crack in the polyurethane (PU) coating of the torsion bar as depicted in Figure 1 of Airbus Helicopters Gazelle work card 65.12.607, dated August 2008 (work card). Consider two cracks that are less than 5 mm (.196 in) apart as a single crack. If there is a crack in the PU coating that is more than 5 mm (.196 in), replace the torsion bar before further flight. Do not rework the PU coating of the torsion bar in any way.

(ii) Inspect the angle, dimension alpha, as depicted in View on Arrow F of Figure 1 of the work card. If the angle is 7 or more degrees, replace the torsion bar before further flight.

(iii) Inspect each bushing for corrosion on the inside diameter. If any corrosion cannot be removed by rubbing it with an abrasive pad, replace the torsion bar before further flight.

(iv) Using an outside micrometer, measure the thickness, dimension a, of each bushing as depicted in Detail AA of Figure 1 of the work card. If the thickness is less than 37.520 mm (1.477 in), replace the torsion bar before further flight.

(v) Using an inside micrometer, measure the inside diameter, dimension b, of each bushing as depicted in Detail AA of Figure 1 of the work card. If the diameter is larger than 21.040 mm (.828 in), replace the torsion bar before further flight.

(vi) Inspect the two faces of each bushing for missing varnish. If varnish is missing from more than 15% of the surface area on a face of a bushing, before further flight, remove all varnish using 400-grit abrasive paper. Finish with an abrasive pad and apply a coat of P05 paint to the face of the bushing.

Table 1 to paragraph (e)(1)

Time Accumulated on Torsion Bar	Compliance Time
(i) Less than 320 hours time-in-service (TIS) since new and has never been inspected in accordance with Airbus Helicopters 341G - 342J Airworthiness Limitations, Revision 18, dated June 2014 (limitations inspection).	Before accumulating 420 hours TIS since new or within 24 months since the date of first installation on any helicopter, whichever occurs first.
(ii) 320 or more hours TIS since new and has never had a limitations inspection.	Within 100 hours TIS, or before accumulating 600 hours TIS since new, or within 24 months since the date of first installation on any helicopter, whichever occurs first.
(iii) Less than 320 hours TIS since the last limitations inspection.	Before accumulating 420 hours TIS since the last limitations inspection or within 24 months since the last limitations inspection, whichever occurs first.
(iv) 320 or more hours TIS since the last limitations inspection.	Within 100 hours TIS, or before accumulating 600 hours TIS since the last limitations inspection, or within 24 months since the last limitations inspection, whichever occurs first.

(2) For each torsion bar with 5 or more years since the first date of installation on any helicopter, within the compliance time shown in Table 2 to paragraph (e)(2) of this AD, do the inspections required by paragraphs (e)(1)(i) through (vi) of this AD.

Table 2 to paragraph (e)(2)

Time Accumulated on Torsion Bar	Compliance Time
(i) Less than 320 hours TIS since new, and less than 6 months since the date of first installation on any helicopter, and has never had a limitations inspection.	Before accumulating 420 hours TIS since new or within 12 months since the date of first installation on any helicopter, whichever occurs first.
(ii) 320 or more hours TIS since new or more than 6 months since the date of first installation on any helicopter, and has never had a limitations inspection.	Within 100 hours TIS, or within 6 months, or before accumulating 600 hours TIS since new, or within 24 months since the date of first installation on any helicopter, whichever occurs first.
(iii) Less than 320 hours TIS since last limitations inspection and less than 6 months since the last limitations inspection.	Before accumulating 420 hours TIS since last limitations inspection or 12 months since last limitations inspection, whichever occurs first.
(iv) 320 or more hours TIS since last limitations inspection or 6 or more months since the last limitations inspection.	Within 100 hours TIS, or within 6 months, or before accumulating 600 hours TIS since the last limitations inspection, or within 24 months since the last limitations inspection, whichever occurs first.

(3) Repeat the inspections required by paragraphs (e)(1)(i) through (vi) of this AD as follows:

(i) For torsion bars with less than 6 years since the date of installation on any helicopter, at intervals not to exceed 420 hours TIS or 24 months, whichever occurs first.

(ii) For torsion bars with 6 or more years since the date of installation on any helicopter, at intervals not to exceed 420 hours TIS or 12 months, whichever comes first.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

(1) Airbus Helicopters Alert Service Bulletin ASB No. SA341/SA342-05.40, Revision 0, dated April 28, 2014, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2014-0216, dated September 24, 2014. You may view the EASA AD on the Internet at <http://www.regulations.gov> in the AD Docket.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6700 Main Rotor.

Issued in Fort Worth, Texas, on November 9, 2015.

Lance T. Gant,

Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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